

- 47 -

CLAIMS:

- See
C9
1. (Amended) A peptide which comprises an analogue of the carboxyl-terminal sequence of a growth hormone, said carboxyl-terminal sequence containing amino acid residues 177-191 of human growth hormone:
Leu-Arg-Ile-Val-Gln-Cys-Arg-Ser-Val-Glu-Gly-Ser-Cys-Gly-Phe,
or a corresponding sequence of a non-human mammalian growth hormone; wherein in said analogue
- (i) amino acids at positions 182 and 189 of hGH are joined by a bond to promote a cyclic conformation; and/or
 - (ii) amino acids at positions 183 and 186 of hGH are joined by a salt bridge or a covalent bond;
or an organic or inorganic acid addition salt thereof.
2. (Cancelled).
3. (Cancelled).
4. (Cancelled).
5. (Cancelled).
6. (Cancelled).
7. (Amended) A peptide according to claim 1, wherein the bond between amino acids at positions 182 and 189 is a disulfide bond.

- 48 -

8. (Amended) A peptide according to claim 1, wherein the amino acids at positions 182 and 189 are selected from the group consisting of L-Cys, D-Cys, L-Pen and D-Pen.
9. (Amended) A peptide according to claim 16, wherein the amino acids at positions 183 and 186 are joined by a salt bridge, and are (X and Y) or (Y and X), respectively, where:
X is a positively charged amino acid, and
Y is a negatively charged amino acid.
10. A peptide according to claim 9, wherein X is selected from the group consisting of L- or D-Arg, Lys and Orn, and Y is selected from the group consisting of L- or D-Asp and Glu.
11. (Amended) A peptide according to claim 1, wherein the amino acids at positions 183 and 186 are joined by an amide covalent bond.
12. (Amended) A peptide according to claim 11, wherein the amino acids at positions 183 and 186 are (X and Y) or (Y and X), respectively, where:
X is selected from the group consisting of L- or D- Lys and Orn,
and
Y is selected from the group consisting of L- or D- Asp and Glu.
13. (Amended) A peptide of the sequence:
X¹m-Leu-Arg-Ile-Val-Gln-Cys-Arg-Ser-Val-Glu-Gly-Ser-Cys-Gly-Phe-X²n
wherein X¹ and X² are each selected from the group consisting of L- or D- Arg, His, Lys and Tyr, and m and n are each 0, 1, 2 or 3 with the proviso that at least m or n is 1;

000240-45080560

Del B7

But B7

a cyclic disulfide thereof or an organic or inorganic acid addition salt thereof.

14. (Amended) A peptide of the sequence:
Y¹-Leu-Arg-Ile-Val-Gln-Cys-Arg-Ser-Val-Glu-Gly-Ser-Cys-Gly-Phe
wherein Y¹ is selected from the group consisting of the desamino form (H), acetyl (CH₃CO-) and other acyl groups;
a cyclic disulfide thereof or an organic or inorganic acid addition salt thereof.
15. (Amended) A peptide of the sequence:
Leu-Arg-Ile-Val-Gln-Cys-Arg-Ser-Val-Glu-Gly-Ser-Cys-Gly-Phe-Y²
wherein Y² is selected from the group of CONH₂ and alkyl amide groups;
a cyclic disulfide thereof or an organic or inorganic acid addition salt thereof.
16. (Amended) A peptide which is selected from the group consisting of:

Ref No.	STRUCTURE
9502	Leu Arg Ile Val Gln <u>Pen</u> Arg Ser Val Glu Gly Ser <u>Pen</u> Gly Phe
9405	<u>CH₃CO-</u> Leu Arg Ile Val Gln Cys Arg Ser Val Glu Gly Ser Cys Gly Phe
9410	<u>H</u> - Leu Arg Ile Val Gln Cys Arg Ser Val Glu Gly Ser Cys Gly Phe
9404	Leu Arg Ile Val Gln Cys Arg Ser Val Glu Gly Ser Cys Gly Phe - <u>CONH₂</u>
9407	Leu Arg Ile Val Gln Cys <u>Lys</u> Ser Val Glu Gly Ser Cys Gly Phe
9408	Leu Arg Ile Val Gln Cys <u>Lys</u> Ser Val Glu Gly Ser Cys Gly Phe [](amide bond)
9604	<u>Tyr</u> Leu Arg Il Val Gln Cys Arg Ser Val Glu Gly Ser Cys Gly Phe

- 50 -

Sub B7

9605 Lys Leu Arg Ile Val Gln Cys Arg Ser Val Glu Gly Ser Cys Gly Phe

9618 Lys Lys Leu Arg Ile Val Gln Cys Arg Ser Val Glu Gly Ser Cys Gly Phe

9607 Ala Arg Ile Val Gln Cys Arg Ser Val Glu Gly Ser Cys Gly Phe

9606 Leu Lys Ile Val Gln Cys Arg Ser Val Glu Gly Ser Cys Gly Phe

9608 Leu Arg Ala Val Gln Cys Arg Ser Val Glu Gly Ser Cys Gly Phe

9403 Leu Arg Lys Val Gln Cys Arg Ser Val Glu Gly Ser Cys Gly Phe

9609 Leu Arg Ile Ala Gln Cys Arg Ser Val Glu Gly Ser Cys Gly Phe

9610 Leu Arg Ile Val Ala Cys Arg Ser Val Glu Gly Ser Cys Gly Phe

9612 Leu Arg Ile Val Gln Cys Arg Ala Val Glu Gly Ser Cys Gly Phe

9613 Leu Arg Ile Val Gln Cys Arg Ser Ala Glu Gly Ser Cys Gly Phe

9615 Leu Arg Ile Val Gln Cys Arg Ser Val Glu Ala Ser Cys Gly Phe

9616 Leu Arg Ile Val Gln Cys Arg Ser Val Glu Gly Ala Cys Gly Phe

9602 Leu Arg Ile Val Gln Cys Arg Ser Val Glu Gly Ser Cys Ala Phe

9501 Leu Arg Ile Val Gln Cys Arg Ser Val Glu D-Ala Ser Cys D-Ala Phe

9601 Leu Arg Ile Val Gln Cys Arg Ser Val Glu Gly Ser Cys Gly Ala

wherein the amino acid residue abbreviations used are in accordance
with the standard peptide nomenclature:

Gly	=	Glycine;	Ile	=	Isoleucine;
Glu	=	Glutamic Acid;	Phe	=	Phenylalanine;
Cys	=	Cysteine;	Arg	=	Arginine;
Gln	=	Glutamine;	Leu	=	Leucine;
Ser	=	Serine;	Val	=	Valine;
Lys	=	Lysine;	Ala	=	Alanine;
Asp	=	Aspartic acid;	His	=	Histidine;

09508054-042000

- 51 -

Orn = Ornithine; Tyr = Tyrosine;

Pen = Penicillamine (β,β' -Dimethyl-Cysteine).

wherein all amino acids, except for glycine, are of the L-absolute configuration, unless indicated as D-absolute configuration, and the peptide has a cyclic disulfide bond between Cys(182) and Cys(189) or Pen(182) and Pen(189) as appropriate, or an organic or inorganic acid addition salt thereof.

17. (Amended) A method for the treatment of obesity in an animal, which comprises administering to the animal an effective amount of a peptide according to ~~any one of claims 1 or 7 to 16~~ ^{claim 1}.

18. A method according to claim 17, wherein the animal is a human.

19. (Cancelled).

20. (Cancelled).

21. (Cancelled).

22. (Cancelled).

23. (Cancelled).

24. (Cancelled).

25. (Cancelled).

26. (Cancelled).

27. (Cancelled).
28. (Cancelled).
29. (Cancelled).
30. (Cancelled).
31. (Cancelled).
32. (Cancelled).
33. (Cancelled).

34. (Amended) A method according to claim 17 or claim 18, wherein the peptide is administered orally.

35. (Amended) ~~Use of a peptide according to any one of claims 1 or 7 to 16 in the manufacture of a pharmaceutical composition for the treatment of obesity in an animal.~~

36. (Amended) A pharmaceutical composition for use in the treatment of obesity in an animal, which comprises an effective amount of a peptide according to ^{claim} ~~any one of claims 1 to 7 or 16~~, together with one or more pharmaceutically acceptable carriers and/or diluents.

Add a!